

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

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In the Matter of:

THE APPLICATION OF THE CANNONSBURG )  
WATER DISTRICT, INC., A WATER DISTRICT )  
ORGANIZED PURSUANT TO CHAPTER 74 OF THE )  
KENTUCKY REVISED STATUTES OF BOYD )  
COUNTY, KENTUCKY, FOR (1) A CER- )  
TIFICATE OF PUBLIC CONVENIENCE AND )  
NECESSITY, AUTHORIZING AND PERMITTING ) CASE NO. 9036  
SAID WATER DISTRICT TO CONSTRUCT A )  
BOOSTER STATION AT BRIARWOOD ESTATES )  
AND THE RENOVATION OF TWO STANDPIPE )  
WATER TANKS IN SAID SYSTEM, (2) )  
APPROVAL OF THE WATER RATES PROPOSED )  
TO BE CHARGED BY THE DISTRICT OF )  
CUSTOMERS OF THE DISTRICT )

AND

DICKINSON, ET. AL. VERSUS )  
CANNONSBURG WATER DISTRICT ) CASE NO. 9142

O R D E R

On April 10, 1984, Cannonsburg Water District, ("Cannonsburg"), filed its application with this Commission seeking to increase its rates and charges for water service rendered to its customers by \$25,000, a 5.2 percent increase over test-period revenues, to become effective November 1, 1984. This was a reduced request from a filed revenue deficiency of \$26,443.<sup>1</sup> Based on considerations and determinations herein, Cannonsburg has been granted no increase in revenues.

<sup>1</sup>

Schedule II of application.

Cannonsburg filed an amended application on May 16, 1984, for approval of adjustments to its water service rates, authorization to make repairs and improvements to its water distribution system to include constructing a hydropneumatic tank and pump station to serve the Briarwood Estates Subdivision ("Briarwood Estates") and approval of its financing for these improvements. Cannonsburg filed a second amended application on August 9, 1984, for approval of adjustments to its water service rates and authorization to make repairs and improvements to its water distribution system, to include making a connection to the Big Sandy Water District ("Big Sandy") to serve Briarwood Estates instead of constructing a hydropneumatic tank and pump station. Cannonsburg's project financing is to be provided by surplus funds from its Bond and Interest Sinking Fund Reserve.

The proposed project should improve service to about 60 existing customers in Briarwood Estates as well as provide necessary repairs to improve and maintain adequate service system-wide.

Plans and specifications for these improvements as prepared by James F. Robinson & Associates Civil Engineers of Ashland, Kentucky, ("Engineer") have been approved by the Division of Water of the Natural Resources and Environmental Protection Cabinet.

A request for an investigation into low pressure in Briarwood Estates was received by the Commission on September 4, 1984. The petition which was signed by residents of Briarwood Estates also expressed the opinion that the proposed rate increase

should not go into effect until improvements in service are made in Briarwood Estates.

In order to determine the reasonableness of the proposed request, the Commission, by its Order of April 16, 1984, suspended the proposed rates and charges for 5 months after June 1, 1984. Public hearings were held in the Commission's offices in Frankfort, Kentucky, on September 6, 1984, to consider the request.

On September 19, 1984, L. Eugene Dickinson, Strauss D. Wolfe, and James L. Fields ("Complainants") filed a complaint against Cannonsburg stating that the proposed connection to Big Sandy may not be the best solution to the low pressure problems currently being experienced in Briarwood Estates. A separate case was then established for the complaint (Case No. 9142) and a hearing in this matter was held October 17, 1984.

For purposes of deciding this matter, the Commission will consolidate the complaint case (Case No. 9142) with the construction and rate case (Case No. 9036).

#### COMMENTARY

Cannonsburg is a non-profit water utility engaged in the distribution and sale of water to approximately 2,000 customers in Boyd County, Kentucky. Cannonsburg currently purchases all of its water from the City of Ashland, Kentucky.

#### TEST PERIOD

The Commission has adopted the proposed 12-month period ending December 31, 1983, as the test period for determining the

reasonableness of the proposed rates. In utilizing the historical test period, the Commission has given full consideration to known and measurable changes found reasonable.

#### REVENUES AND EXPENSES

Cannonsburg proposed several adjustments to revenues and expenses in its application. The Commission is of the opinion that the proposed adjustments are generally proper and acceptable for rate-making purposes with the following modifications.

##### Uniform Maintenance

During the test period, Cannonsburg incurred \$792 in operating expenses for maintenance of employee uniforms. In Case No. 8369, The Cannonsburg Water District, Inc., Notice and Application for Rate Increase, the Commission found the amounts expended for uniform maintenance by this small, non-profit water utility were not acceptable for rate making purposes<sup>2</sup> and, since Cannonsburg offered no proof to support a material change in its operations or circumstances existing in Case 8369,<sup>3</sup> the Commission has reduced test-year operating expenses by \$792 to exclude this cost, consistent with its findings in that case.

##### Outside Services

Cannonsburg reported test-period expenses classified as Outside Services of \$9,860. A breakdown of this amount revealed that \$2,600 of expensed engineering fees was attributable to

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<sup>2</sup> Final Order dated August 12, 1982.

<sup>3</sup> Transcript of Evidence ("T.E."), dated September 6, 1984, pages 41 and 42.

initial study and evaluation which led to the installation of a 1-million gallon storage tank.<sup>4</sup> The Uniform System of Accounts for Class A and B water utilities requires that the original cost of an asset reflect all costs related to the acquisition and installation of the asset, including the cost of engineering. Furthermore, inasmuch as this asset will provide benefits for more than one accounting period, it should not be included as an operating expense for rate-making purposes. Therefore, the Commission has reduced the total amount expensed for outside services by \$2,600 and has included the \$2,600 in the original cost of the water storage tank.

#### Depreciation Expense

Cannonsburg reported test-year depreciation expense of \$59,342. Cannonsburg proposed an adjustment of \$3,773 to increase depreciation expense to reflect depreciation on proposed minor extraordinary repairs and replacements. An additional adjustment of \$3,870 was proposed to reflect annual depreciation on a new water storage tank placed in service during the test-period, bringing the adjusted level of depreciation expense to \$66,985. In acknowledgment of contributions in aid of construction, Cannonsburg proposed a reduction in depreciation expense of \$32,692 to a proposed level of depreciation expense for rate-making purposes of \$34,293.

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<sup>4</sup>

Response to information request dated June 27, 1984, Item No. 4.

The Commission is of the opinion that the cost of extraordinary repairs is a prudent and necessary expenditure in this instance and accepts for rate-making purposes the \$3,773 increase in depreciation expense associated with the extraordinary repairs. The Commission also finds that the increase of \$3,870 attributable to a full year's depreciation on the recently installed water tank is appropriate; additionally, the Commission has increased this amount by \$52 to be consistent with its earlier decision herein to capitalize \$2,600 in engineering fees.

However, the Commission does not concur with Cannonsburg's method of calculating the depreciation expense related to contributions in aid of construction. Cannonsburg has almost exclusively used contributions in aid of construction to offset longer-lived plant assets.<sup>5</sup> The Commission is of the opinion that the entire gross plant is necessary if the utility is to provide ongoing service to its customers; thus short-lived assets are as much a permanent fixed asset as long-lived assets and are consequently supported by such long-term funding as contributions in aid of construction. Therefore, the Commission has reduced the adjusted depreciation expense by \$39,353 to be consistent with its established policy concerning disallowance of depreciation on property funded with contributions in aid of construction.

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<sup>5</sup>

Application filed April 10, 1984, Schedule Ic.

### Commissioners' Compensation

Cannonsburg's three commissioners each receive fees between \$1,200 and \$1,400 annually. In addition, Cannonsburg contributes \$1,400 per commissioner to a deferred compensation plan. In Case No. 8369, The Matter of the Cannonsburg Water District, Inc., Notice and Application for Rate Increase, the Commission found that the amounts expended for this deferred compensation were unreasonable.<sup>6</sup> Since Cannonsburg provided no proof to support a material change in operations or circumstances since that time,<sup>7</sup> the Commission has reduced test-period operating expenses by \$4,200 consistent with its findings in Case No. 8369.

The effect of these adjustments on net income is as follows:

	<u>Actual Test Period</u>	<u>Adjustments</u>	<u>Adjusted Test Period</u>
Operating Revenues	\$479,932	\$ -0-	\$479,932
Operating Expenses	444,300	<28,628>	415,672
Operating Income	<u>\$ 35,632</u>	<u>\$ 28,628</u>	<u>\$ 64,260</u>
Interest on Long-term Debt	\$ 53,392	\$ 10,859	\$ 64,251
Other Income	23,498	<1,800>	21,698
Net Income	<u>\$ 5,738</u>	<u>\$ 15,969</u>	<u>\$ 21,707</u>

### REVENUE REQUIREMENTS

In Cannonsburg's last general rate case, the Commission allowed revenues sufficient to provide a 1.2X debt service

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<sup>6</sup> Final Order dated August 12, 1982, page 4.

<sup>7</sup> T.E., September 6, 1984, page 28.

coverage on the total annual debt service requirements. In determining the appropriate level of revenues in this case, the Commission has conducted a thorough analysis of the financial condition of Cannonsburg, including specifically its current cash reserves, temporary cash investments, cash flow, current capital needs for construction and mortgage requirements.

At the end of the test period, Cannonsburg had approximately \$321,769 in its temporary cash investments special funds, cash and working funds. During the test period, the level of these funds increased by \$65,933. Moreover, the cash and general funds of Cannonsburg have increased by \$67,518 since the test period in the last rate case of Cannonsburg. Cannonsburg anticipates that these funds will be reduced by approximately \$49,100, based on the current construction project approved herein. No additional future construction proposals by Cannonsburg are now under consideration by this Commission.

Based on the methodology used in Cannonsburg's last rate case, a 1.2X DSC would yield approximately \$47,000 annually in additional general funds. The Commission would have to allow an increase in rates of \$13,224 to achieve a 1.2X DSC.

Cannonsburg's current long-term debt outstanding as of December 31, 1983, totaled \$1,020,613, with current portions in the amount of \$5,854 due within one year.

Two commercial notes were carried in the amount of \$146,000 and \$56,613 at a 10.2 percent annual variable interest rate and a 9 percent annual fixed interest rate, respectively. The remaining long-term debt consists of two revenue bond issues of \$487,000 and



\$331,000 which carried nominal rates of 5 3/4 percent and 5 percent, respectively. Footnote 2 concerning long-term debt of Cannonsburg's audited 1983 financial statements discloses no additional debt service requirement of minimum annual earnings or reserve account provisions for the commercial notes.<sup>8</sup> The revenue bonds require a sinking fund of \$65,000, a fund for annual interest and principal payments of \$59,552, and a "Replacement and Extension Reserve Fund" of \$75,000<sup>9</sup> for a total reserve requirement of \$199,552. Clearly, the total reserve requirement of \$199,552 compares very favorably with the year-end level of cash, temporary cash investments and cash working funds totalling \$321,769.

The adjusted test-period operating statement reflects a DSC of 1.04X the total debt service obligation. This would provide a DSC of 1.06 on the water revenue bond portion of the annual debt service requirements. Based on the strong financial condition of Cannonsburg, the Commission is of the opinion and finds that the adjusted DSC is sufficient and no additional increase is warranted at this time.

#### RATE STRUCTURE

Cannonsburg's present rate structure allows for a different minimum bill to be charged for each size connection. The amount of the minimum bill ranges from \$9 for customers served by a

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<sup>8</sup> Attached to application dated April 10, 1984.

<sup>9</sup> 1980 Annual Report, page 7.

5/8-inch connection to \$200 for customers served by a 12-inch connection. The customer is entitled to 2,000 gallons of water for the minimum bill regardless of connection size.

The Commission is of the opinion that a minimum charge for the various size connections is fair; however, the Commission has determined that as the minimum bill increases, the gallonage allowed should be increased. Therefore, the Commission has increased the amount of gallonage allowed in the minimum bills to provide a more equitable method of billing.

Cannonsburg stated at the hearing that it cost approximately \$1.05 per 1,000 gallons to supply water to its customers. The present rate for all water in excess of 100,000 gallons is 69 cents per 1,000 gallons. The Commission has increased this rate to \$1.05 per 1,000 gallons to more adequately reflect the actual cost and to prevent the small-volume user from subsidizing the large-volume user. This results in some customers receiving a decrease in rates while the large-volume users will incur an increase in rates.

#### CONSTRUCTION

Cannonsburg has proposed making a connection to Big Sandy as a method for alleviating the low pressure problem in Briarwood Estates. This installation would allow Cannonsburg to purchase water for this high elevation subdivision and provide adequate pressure within the PSC requirements of 807 KAR 5:066, with the lowest pressure, according to the Engineer's calculations, being about 78 psig.

The Complainants alleged that making a connection to Big Sandy may not be the most feasible solution from an engineering or an economic standpoint. The Complainants also stated that in their opinion the best solution would be the installation of a water storage tank and pump station. The Complainants filed cost comparison information which in their opinion showed that the cost difference between the two alternatives is negligible and system reliability should be the most important factor in the Commission's decision in this matter. The Complainants also stated that Big Sandy, during its 2 years of operation, has experienced 6 major outages or interruptions of service, while during the same time period no major service interruptions have occurred on Cannonsburg's system.

In reviewing the cost comparison filed by the Complainants it was found that this information did not make a true comparison of the costs associated with the two alternatives. If a comparison is made using the same format and allowing for rate increases from their respective suppliers which may be forthcoming for both Cannonsburg and Big Sandy, it appears that the cost difference is more than negligible, with the connection to Big Sandy showing an estimated annual cost of less than one third of the annual cost of constructing a tank and pump station.

In reviewing the engineering feasibility of the two alternatives, either option would seem to present a viable solution to the low pressure problems. If reliability is considered based only on the outage record cited, the tank and pump station would appear to be the best solution. However, the connection to Big

Sandy would appear to give Cannonsburg a second source of water for emergencies as well as the ability to provide water service to Briarwood Estates from two directions. The construction as proposed would allow Cannonsburg to receive and supply water at pressures within the PSC requirements. The connection as proposed does not allow for Big Sandy to receive water from Cannonsburg. Based on the method of construction, the water service provided to Briarwood Estates should be a marked improvement, even when allowing for occasional outages.

If the Commission fulfills its obligation to require adequate service at a reasonable rate, the decision in this matter would have to be to grant a certificate of convenience and necessity for making the connection to Big Sandy. However, Cannonsburg should carefully monitor the water service being provided in Briarwood Estates. If the water service being provided is not above the minimum pressures required by Commission regulations or is not reliable, allowing for occasional outages, Cannonsburg should take immediate additional steps to improve the water service in this area.

#### FINDINGS AND ORDERS

The Commission, after consideration of the application and evidence of record and being advised, is of the opinion and finds that:

1. Public convenience and necessity require that the construction proposed in the application and record be performed and that a certificate of public convenience and necessity be granted.

2. The proposed repairs and improvements to the Cannonsburg water system include cleaning and painting existing 50,000- and 350,000-gallon water storage tanks, purchasing a standby booster pumping station and making a connection to Big Sandy to improve water pressure in Briarwood Estates.

3. The low bids received for the tank maintenance, standby pump and material for the connection to Big Sandy totaled \$43,792 which will require about \$47,121 in project funding after allowances are made for installation of the material for the connection to Big Sandy.

4. The financing proposed by Cannonsburg for this project will be needed to pay for the work herein approved. Cannonsburg's financing plan should, therefore, be approved.

5. Cannonsburg should file with the Commission duly verified documentation which shows the total costs of construction including all capitalized costs (engineering, legal, administrative, etc.) within 60 days of the date that construction is substantially completed. Said construction costs shall be classified into appropriate plant accounts in accordance with the Uniform System of Accounts for Water Utilities prescribed by this Commission.

6. Cannonsburg's contract with its Engineer should require the provision of construction inspection under the general supervision of a professional engineer with a Kentucky registration in civil or mechanical engineering. The supervision and inspection should insure that the construction work is done in accordance with the contract plans and specifications and in

conformance with the best practices of the construction trades involved in the project.

7. Cannonsburg should require the Engineer to furnish a copy of the record plans and a signed statement that the construction has been satisfactorily completed in accordance with the contract plans and specifications within 60 days of the date of substantial completion of this construction.

8. Cannonsburg should file with the Commission a copy of all contractual agreements for the provision of services or the purchase of services which are subject to the approval of this Commission.

9. The rates in Appendix A are fair, just and reasonable rates for Cannonsburg in that they will produce annual operating revenues of approximately \$479,932 and should be approved. These revenues will be sufficient to meet Cannonsburg's operating expenses found reasonable for rate-making purposes, service its debt, and provide a reasonable surplus.

10. The rates proposed by Cannonsburg would produce revenue in excess of that found reasonable herein and should be denied.

IT IS THEREFORE ORDERED that Cannonsburg be and it hereby is granted a certificate of public convenience and necessity to proceed with the waterworks improvements projects set forth in the plans and specifications of record hereby approved.

IT IS FURTHER ORDERED that Cannonsburg shall comply with all matters set out in Findings 1 through 8 as if the same were individually so ordered.

IT IS FURTHER ORDERED that the rates in Appendix A be and they hereby are approved for service rendered by Cannonsburg on and after the date of this Order.

IT IS FURTHER ORDERED that the rates proposed by Cannonsburg be and they hereby are denied.

IT IS FURTHER ORDERED that within 30 days from the date of this Order Cannonsburg shall file with this Commission its revised tariff sheets setting out the rates approved herein.

Done at Frankfort, Kentucky, this 2nd day of November, 1984.

PUBLIC SERVICE COMMISSION

Richard D. Hemminger  
Chairman

Robert H. Ziegler, Jr.  
Vice Chairman

Sam Shuck  
Commissioner

ATTEST:

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Secretary

## APPENDIX A

### APPENDIX TO AN ORDER OF THE PUBLIC SERVICE COMMISSION IN CASE NO. 9036 DATED 11/2/84

The following rates are prescribed for the customers in the area served by Cannonsburg Water District. All other rates and charges not specifically mentioned herein shall remain the same as those in effect under authority of the Commission prior to the effective date of this Order.

#### RATES: Monthly

##### 5/8-inch Meter

First	2,000 gallons	\$ 8.65 Minimum Bill
Next	3,000 gallons	1.90 per 1,000 gallons
Next	15,000 gallons	1.50 per 1,000 gallons
Next	30,000 gallons	1.25 per 1,000 gallons
Next	50,000 gallons	1.15 per 1,000 gallons
Over	100,000 gallons	1.05 per 1,000 gallons

##### 1-inch and 1 1/2-inch Meters

First	5,000 gallons	\$14.35 Minimum Bill
Next	15,000 gallons	1.50 per 1,000 gallons
Next	30,000 gallons	1.25 per 1,000 gallons
Next	50,000 gallons	1.15 per 1,000 gallons
Over	100,000 gallons	1.05 per 1,000 gallons

##### 2-inch and 3-inch Meters

First	20,000 gallons	\$36.85 Minimum Bill
Next	30,000 gallons	1.25 per 1,000 gallons
Next	50,000 gallons	1.15 per 1,000 gallons
Over	100,000 gallons	1.05 per 1,000 gallons



6-inch Meter

First 50,000 gallons  
Next 50,000 gallons  
Over 100,000 gallons

\$74.35 Minimum Bill  
1.15 per 1,000 gallons  
1.05 per 1,000 gallons

12-inch Meter

First 100,000 gallons  
Over 100,000 gallons

\$131.85 Minimum Bill  
1.05 per 1,000 gallons